



BIOL-006C: Ecology & Evolution

Spring 2023

BIOLOGY–006C.01Y: CRN 00227	In-person Labs/Field/Exams/Presentations Tue 9:30–3:20	SC-2116
BIOLOGY–006C.02Y: CRN 48359	In-person Labs/Field/Exams/Presentations Wed 9:30–3:20	SC-2116
	Asynchronous Labs 1 hr/week	ONLINE
	Asynchronous Lectures: 1.5–2 hrs; twice/week	ONLINE
Instructor: Bruce Heyer	Email: heyerbruce @ deanza.edu Online Office Hours: Mon & Thu 10:00–11:50 via Zoom	
BIOL 6C class homepage: http://www.deanza.edu/faculty/heyerbruce/bio6c.html		
BIOL 6C course syllabus: http://www.deanza.edu/faculty/heyerbruce/bio6csyllabus23Sp.html		

Schedule:

Week	Date	Day	Synchronous Lab & Field topic	Asynchronous Lab & Homework	Asynchronous Lecture topic	Text
1	Apr 11	Tue Sec 01Y	Ex. 1A & 1B: Scientific Investigation Ex. 1C: Statistical Analysis, part A.	♦ EcoBeaker®: Experimental Design Finish 1A, 1B, & 1C-pt.A	Introduction to ecology	Ch. 52
	Apr 12	Wed Sec 02Y			Biogeography	“
2	Apr 18	Tue Sec 01Y	Ex. 2A & 2B: Vegetation transects / class data Ex. 1C: Statistical Analysis, part B	♦ EcoBeaker®: Patchy Prairies (+ workbook) Ex. 1C-pt.B Ex. 3A pre-lab	Guest Cast: Climate Zones & Terrestrial Biomes	“
	Apr 19	Wed Sec 02Y			Population dynamics & Life history strategies	Ch. 53
3	Apr 25	Tue Sec 01Y	Ex. 2A+B Report due. Ex. 1C: Statistical Analysis, part C Ex. 3A pre-lab Ex. 3B & 3C: Population size & dispersal.	♦ EcoBeaker®: Population Growth Models Ex. 1C-pt.C Project pitches	Community ecology	Ch. 54
	Apr 26	Wed Sec 02Y			Biodiversity dynamics	“
4	May 02	Tue Sec 01Y	EXAM 1 Ex. 3B & 3C report due. Ex. 1C: Statistical Analysis, part D Project pitches due / Project groups assemble. Preview: Stevens Creek ecology	♦ EcoBeaker®: Top-Down Control Ex. 1C-pt.D Project proposal	Guest Cast: Niche Partitioning and Biodiversity	“
	May 03	Wed Sec 02Y			Ecosystems — energy & water	Ch. 55

5	May 09	Tue Sec 01Y	Ex. 1C. pt. D report due		◇ EcoBeaker®: Isle Royale Project proposal	Guest Cast: Riverine Ecology	
	May 10	Wed Sec 02Y	Field Day: Stevens Creek Watershed			Case Study: Wolves and Moose	
6	May 16	Tue Sec 01Y	Field Day: DeAnza campus birds Creek worksheet due		◇ EcoBeaker®: Keystone Predator	Ecosystem resource cycles	“
	May 17	Wed Sec 02Y	Project proposal draft due / materials & logistics Ex. 5A & 5B: Behavioral ecology			CA ecological provinces	<i>Atlas of the Biodiversity of California</i>
7	May 23	Tue Sec 01Y	Field Day: SF Bay Refuge / Baylands		◇ EcoBeaker®: Intermediate Disturbance Hypothesis (+ workbook)	Pollution and Ecotoxicology	
	May 24	Wed Sec 02Y				Conservation & restoration	Ch. 56
8	May 30	Tue Sec 01Y	EXAM 2	Ex. 4C: Bird diversity – habitats 1 & 2 eDNA? Ex. 5B: Behavioral ecology, pt.2 Toxicology?	◇ EcoBeaker®: Limiting Nutrients (+ workbook) ◇ EcoBeaker®: Nutrient Pollution	Guest Cast: Apex Predators & <i>Keystone Species</i>	“
	May 31	Wed Sec 02Y				Behavioral biology	
9	Jun 06	Tue Sec 01Y	Field Day: San Francisco Zoo		◇ EvoBeaker®: Flowers and Trees (+ workbook)	Origins & paradigms	Ch. 51
	Jun 07	Wed Sec 02Y	Field Day: Monterey Bay Aquarium			Mechanisms of evolution	Ch. 22
10	Jun 13	Tue Sec 01Y	Ex. 4C & Ex. 5 Reports due. Field Day: Santa Cruz Mountains		◇ EvoBeaker®: Darwinian Snails ◇ EvoBeaker®: Sickle-Cell Alleles	Reproductive ecology & sexual selection	Ch. 23
	Jun 14	Wed Sec 02Y	Species Quiz / Field notebooks Work on projects.			Case Studies: Microevolution examples & mechanisms	“
11	Jun 20	Tue Sec 01Y	Final research reports/ class presentations		◇ EvoBeaker®: Genetic Drift ◇ EvoBeaker®: How the Guppy Got Its Spots (+ workbook)	Speciation & diversity	“
	Jun 21	Wed Sec 02Y					Ch. 24
12	Jun 27	Tue Sec 01Y	EXAM 3 (9:15–11:15)				
	Jun 28	Wed Sec 02Y					